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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,308	03/25/2004	Takanori Matsunaga	Q80421	5486
23373	7590	01/27/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LOUIS JACQUES, JACQUES H	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/808,308	<b>Applicant(s)</b> MATSUNAGA ET AL.	
	<b>Examiner</b> Jacques H. Louis-Jacques	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1 is/are rejected.  
 7) ☒ Claim(s) 2 and 3 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/25/04, 12/8/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Abstract***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the use of legal terminology such as "means" should be avoided. Correction is required. See MPEP § 608.01(b).

### ***Information Disclosure Statement***

3. The information disclosure statements (IDS) submitted on March 25, 2004 and December 8, 2004 have been considered by the examiner. It is noted that documents DE 19812237 C1 and DE 19851978A1 submitted on March 25, 2004 are resubmitted on December 8, 2004. Therefore, in order to avoid duplication in printing should this application issue as a patent, these documents have been crossed on the IDS filed on March 25, 2004.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Hac et al [6,549,842].

Hac et al discloses a vehicle dynamics behavior reproduction system [method and apparatus for determining an individual wheel surface coefficient of adhesion] for adapting cornering stiffness to driving situation of a motor vehicle in order to describe accurately behavior of the motor vehicle on the basis of various information derived from outputs of on-vehicle sensors without being influenced by said driving situation of the motor vehicle (abstract, column 1). According to Hac, there is provided arithmetically determining a load applied to each of wheels of said motor vehicle as a vertical wheel force and arithmetically determining a lateral wheel force acting on each of said wheels (abstract, columns 13-14). It is also provided effectuating adaptation of the cornering stiffness at each of said wheels to said driving situation and determining, using a state space model/observer unit, solutions of simultaneous differential equations relating to a dynamics theory of the motor vehicle for calculating variables involved in said dynamics theory (abstract, columns 2, 13-14). Hac also discloses arithmetically determining a tire side slip angle at each of said wheels in view of said driving situation, wherein said state space model/observer unit includes a state space observer designed for determining variables which can not straightforwardly be measured (column 2, 6, 13-14). As described in column 17, in particular, Hac discloses delaying said specific signal on a predetermined unitary time basis and selecting a specific signal as required from signals

representing said solutions generated by said state space model/observer unit. See also column 18.

*Allowable Subject Matter*

6. Claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not particularly teach the equations for the lateral force and the cornering stiffness in the manner recited in the claims.

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,548,536

Ammon

Aug. 1996

Ammon discloses a method for determining quantities which characterize the driving behavior.

5,557,520

Suissa et al

Sep. 1996

Suissa et al discloses a method for determining variables characterizing vehicle handling

6,223,114

Boros et al

Apr. 2001

Boros et al discloses a process for controlling driving dynamics of a street vehicle

6,449,542

Boettiger et al

Sep. 2002

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Bottiger et al discloses a method for automatically controlling the lateral dynamics of a vehicle

6,648,426

Boettiger et al

Nov. 2003

Bottiger et al discloses a process for controlling the yaw relationship of vehicles

6,754,615

Germann et al

Jun. 2004

Germann et al discloses a method of simulating the performance of a vehicle on a road surface, wherein an observer unit or state model is used to determine simultaneous differential equations relating to a dynamics theory of the vehicle. Germann et al also discloses delaying specific signal on a predetermined unitary time basis (figure 3, columns 4-5

6,909,957

Suissa

Jun. 2005

Suissa discloses a method for controlling yaw and transversal dynamics in a road vehicle

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques H. Louis-Jacques whose telephone number is 571-272-6962. The examiner can normally be reached on M-Th 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jacques H Louis-Jacques  
Primary Examiner  
Art Unit 3661

/jlj

*Jacques H. Louis-Jacques*  
JACQUES H. LOUIS-JACQUES  
PRIMARY EXAMINER